

**NEVADA DIVISION OF ENVIRONMENTAL PROTECTION  
FACT SHEET**

(Pursuant to NAC 445A.236)

**Permittee:** Soft Gel Caps West  
P O Box 1765  
Carson City NV 89702

**Permit No.:** NEV98020

**Facility:** Soft Gel Caps West  
10121 Hwy 50 East  
Moundhouse  
Lyon County  
Latitude: 39° 13' 00" North  
Longitude: 119° 39' 45" West  
T16N R22 E S31

**General:** Soft Gel Caps West manufactures paint balls for recreational combat shooting games. The balls burst upon impact, marking their targets with dye. The two primary ingredients are gelatin and polyethylene glycol 400, for shell and filler, respectively. These materials are food grade, biodegradable, and amenable to treatment plant processes. The main source of wastewater is from the rinsing of mixing vats used in preparing the materials. A domestic wastewater source consisting of toilets and sinks is also included.

The wastewater treatment plant is a Santec unit sized for 3250 gpd, consisting of 1000 gpd domestic and 2250 gpd industrial. Processes include secondary treatment and denitrification. Disposal to groundwater is achieved by a dual alternating leachfield, manually controlled based on the depth of liquid in the leachfield piezometers. The Santec unit is preceded by a sand oil separator.

A pretreatment unit was added after facility start up to remove the settleable portion of the high organic load of this waste stream, which exceeds the 300 mg/l BOD design criteria for the treatment plant. The unit, a Model KBMB ElecTemical™ Treatment System, operates by passing direct current through the wastestream. This breaks down colloidal suspensions and emulsions allowing gravity separation. This process is followed by a mixing drum where aerobic bacteria are added to enhance the operation of the Santec plant.

**Receiving Water Characteristics:** The depth to groundwater is estimated at 50 ft. The aquifer is characterized by poor yield and quality, due to clay stratum, shallow bedrock, and high concentrations of sulfates, nitrates, and TDS that have been reported in some wells. The closest logged well is approximately 900 ft south. The nearest public water supply wells, operated by Lyon County Utilities, are approximately 7000 ft northeast, upgradient, in the foothills of the Virginia

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Range. Lyon County Utilities supplies most of the water to the Moundhouse area.

**Rational for Permit Requirements:**

Table I.A.1 - from draft permit NEV98020

Parameters all units mg/l, except flow and pH	Discharge Limitations	Monitoring Requirements		
		Sample Locations	Measurement Frequency	Sample Type
Flow, gpd	3250	effluent	monthly	
BOD <sub>5</sub>	30	effluent	monthly	discrete
TSS	30	effluent	monthly	discrete
Total Nitrogen	10	effluent	monthly	discrete
pH, standard units	6 - 9	effluent	monthly	discrete
Nitrate as N	m & r	effluent	monthly	discrete
Nitrite as N	m & r	effluent	monthly	discrete
Kjeldahl Nitrogen as N	m & r	effluent	monthly	discrete
BOD <sub>5</sub>	m & r	influent	monthly	discrete
TSS	m & r	influent	monthly	discrete

Notes: BOD<sub>5</sub> = 5 day biochemical oxygen demand  
TSS = total suspended solids  
m & r = monitor and report  
Total Nitrogen = Kjeldahl as N + nitrate as N + nitrite as N

The BOD and TSS limits are secondary standards. The total nitrogen limit has been imposed based on long standing contamination in the area. The nitrogen species and influent BOD and TSS data are included to allow evaluation of the denitrification and secondary treatment processes.

**Schedule of Compliance:** There is no schedule of compliance associated with this permit.

**Procedures for Public Comment:** Notice of the Division's intent to renew discharge permit NEV98020, authorizing discharge of treated wastewater from Soft Gel Caps West to groundwater via leachfield, is being sent to the **Nevada Appeal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit must submit written comments to the Division within (30) days of the publication date. The comment period can be extended at the discretion of the Administrator. The

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deadline for receipt of all written comments is Monday January 3, 2005 by 5:00 pm. Comments postmarked prior to that deadline will also be accepted.

A public hearing on the proposed determination can be requested by the applicant, any affected state or interstate agency, the Regional Administrator, or any interested agency, person, or group of persons. The request must be filed within the comment period and indicate the interest of the person filing the request and the reasons why a hearing is warranted. Public hearings granted by the Division are conducted in accordance with NAC 445A.238.

The final determination of the Division may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

**Proposed Determination:** The Division has made the tentative determination to renew the proposed discharge permit for a five year term.

Prepared by:        Robert J. Saunders  
                             Staff Engineer  
                             Bureau of Water Pollution Control  
                             November 15, 2004